

Appl. No. 10/081,080
Amét. Dated: January 13, 2006
Reply to Office Action of October 17, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) A battery connector for a mobile phone, installed in a main body of the mobile phone and contacting a battery terminal to supply power to a printed circuit board (PCB) of the mobile phone, the battery connector comprising:

a body having a plurality of plunger housings, each of the plunger housings having a coupling groove formed on an outer surface at a lower end of each of the plunger housings;

a plurality of plungers each slidably installed in each of the plurality of plunger housings of the body;

a plurality of base cover members each having a cylindrical connection part fitted in a lower end engaged with the coupling groove of each of the plurality of plunger housings, a bottom surface of each of the base cover members adhered to the PCB by soldering and made of conductive material; and

a plurality of coil springs each biasing each of the plungers in each of the plunger housings against the bottom of each of the base cover members.

2. (Currently Amended) An electric connector for providing electric connection between an electric power source and an operating member, comprising:

a contact plunger for making contact with the electric power source, the contact plunger being made of conductive material;

a housing for slidably receiving the contact plunger, the housing having a coupling groove formed on an outer surface at a lower end of the housing;

a coil spring disposed under the contact plunger inside the housing, for providing the contact plunger with elasticity and being made of conductive material; and

a base member disposed between the housing and the operating member, for fixing the housing at a selected region on the operating member, the base member being made of conductive material.

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3. (Previously Presented) The electric connector of claim 2, wherein the contact plunger comprises:

a contact portion for making direct contact with the electric power source, the contact portion protruding from an upper opening of the housing;

a guide portion slidably disposed inside the housing, the guide portion having contact with inner surface of the housing; and

a spring fixing portion extending downward from a lower end of the guide portion, the spring fixing portion being disposed to be engaged with the coil spring.

4. (Currently Amended) The electric connector of claim 3, wherein the housing further comprises:

a shoulder formed at the upper opening of the housing, the shoulder extending inward from edge of the upper opening of the housing; and

~~a coupling groove formed on an outer surface at a lower end of the housing, the coupling groove being disposed to be engaged with the base member.~~

5. (Currently Amended) The electric connector of claim 4, wherein the shoulder makes direct contact with an upper edge of the guide portion of the contact plunger in response to elastic movement of the coil spring.

6. (Canceled)

7. (Currently Amended) The electric connector of claim ~~6~~2, wherein the base member is soldered at the selected region on the operating member.

8. (Previously Presented) The electric connector of claim 2, wherein the electric power source is a battery having a terminal to be in contact with the contact plunger.

9. (Previously Presented) The electric connector of claim 8, wherein the operating member is a circuit board for receiving electric power from the battery.

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10. (Previously Presented) The electric connector of claim 8, wherein the electric connector, the circuit board, and the battery are included in a mobile phone.

11. (New) The battery connector of claim 1, wherein the cylindrical connection part of each of the base cover members comprises an annular hook being inserted into the coupling groove of each of the plunger housings so that each of the base cover members is engaged with each of the plunger housings.

12. (New) The battery connector of claim 1, wherein each of the plungers comprises:
a contact portion for making direct contact with the battery terminal, the contact portion protruding from an upper opening of each of the plunger housings;
a guide portion slidably disposed inside each of the plunger housings, the guide portion having contact with an inner surface of each of the plunger housings; and
a spring fix portion extending downward from a lower end of the guide portion and being inserted into each of the coil springs to be engaged with each of the coil springs.

13. (New) The electric connector of claim 2, wherein the base member comprises an annular hook being inserted into the coupling groove so that the base member is engaged with the housing.

14. (New) The electric connector of claim 13, wherein the annular hook is formed at a connection part formed at an upper end of the base member, the connection part having a cylindrical shape.